MUSEUM STORIES FOR CHILDREN

Presented by

The James Nelson and Anna Louise Raymond Fund
for Children's Lectures and Entertainments

Series XII, Number 1
October 5, 1929

FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

GLACIERS AND ICEBERGS

One of the greatest thrills you can ever experience will come when you have an opportunity to climb a very high mountain. Usually, the lower slopes are covered with magnificent forests. Beyond this comes an area of gnarled, twisted trees that cling closely to Mother Earth for support and shelter. Highest of all is the region of jagged, barren rocks.

This is the kingdom of cloud and wind, and wind is a relentless ruler. It is in this land that glaciers have their beginning.

Tiny wisps of vapor cradled in winds from far distant seas, or wafted up from the lowlands beneath, are here swept into cloud masses which swirl about the treeless summits, fill the crevices, or change at the touch of the wind into flakes of snow.

At first, these flakes are dry and powdery, drift about and fall upon the upper heights. They fill the hollows which are sheltered from the strong winds and if the mountain is extremely high, as in Alaska or Switzerland, the snow may accumulate until its own weight is such as to cause it to creep slowly out of its hollow.

As it passes down the slope, other masses from similar hollows add their snows and together a tongue of snow slowly descends into the valley hemmed in by the slopes. In time several valleys may be traversed until a region having warmer days is reached

When the snow mass reaches these lower levels, the upper part is warmed by the rays of the sun reflected from the Earth's surface and the flakes are partially thawed. On freezing, these are changed into grains of ice. Not all the snow thaws. Much of it acts as a blanket which prevents the sun's heat from reaching the deeper layers, for snow is a poor conductor of heat. As a result, part of the snow will remain in its natural condition, full of air holes, while other parts will change into ice as the melted water from the surface percolates down and seeps into the mass below. In time, this forms running water within the lower parts.

Gradually, other snow masses are piled on the former. Perhaps, a thin line of dust marks the division or thin sheets of rock refuse are imbedded within. The accumulated mass begins to move and like a slow river flows toward the sea. It is now called a "glacier."

Like a huge brush, it sweeps clean the areas over which it passes. It gouges out the sides of the valleys; it lifts massive rocks from their resting places; it scratches and cuts deep grooves in others which happen to be in its way, and when the front part of the mass is melted by the warmer temperatures of the lowlands, deposits these scarred rocks far from their native lands. At Stony Island, in Chicago, you may see scratches made as a glacier passed over the limestone dome there, and north and northwest of the city are great mounds of glaciated material left when the glaciers melted, and retreated to the Labrador region.

In the polar regions and about some mountain ranges, the temperature is always at or below freezing, so that the glaciers have no chance to melt and leave the materials which they have carried from far distant regions.

Then the glaciers, with all their contents, reach the sea and, forced by the weight of the mass behind, the rainwater, snow and ice finds itself projected into the briny water of an ocean. This is just what happens off the coast of Alaska, Greenland and the great continent at the south pole.

Buoyed by the sea water and the air within, the glacier rides for a time on the surface. Then the rise and fall of the tides causes crevasses and caves to form; the wind and the sun play with the mass and suddenly, with a report similar to that of a gun, the toe or front part separates from the glacier and floats off as an "iceberg."

The icebergs from the south polar region are rectangular in form and dazzling white in color, while those from Greenland are blue in color. This is the kind frequently seen by the passengers on ocean liners crossing the North Atlantic.

MARGARET CORNELL, Guide-lecturer

Note: In Hall 34, on the second floor, are many proofs of glacial work. Notice especially the great scratched rock surfaces and boulders, and the copper ores carried by a glacier.

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STEPHEN C. SIMMS, Director

MUSEUM STORIES FOR CHILDREN

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Series XII, Number 2
October 12, 1929

FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

LIBERTY BELL AND OTHER BELLS

One of the most famous treasures of Philadelphia is Liberty Bell. When it was made, in London, it received two inscriptions. One of these runs: "By order of the Province of Pennsylvania for the State House in the City of Philadelphia, 1752," and the other: "Proclaim liberty throughout the land and to all the inhabitants thereof." The second was added because the Pennsylvanians were celebrating the fiftieth anniversary of the founding of their free colony by William Penn.

After its arrival in Philadelphia, the bell was cracked in being tested, and had to be melted and recast. In June, 1753, it was finally finished and began its work of ringing for every festival and solemn occasion of the city. The most famous of these occasions came in July of 1776, when Liberty Bell spoke the joy of the people over the Declaration of Independence.

That was not the last time the famous bell acted as the voice of Philadelphia and of the United States, for it remained in use until July 8, 1835, when it was cracked in tolling for the death of Chief Justice Marshall. Since then it has been tenderly cared for. On rare occasions it has been allowed to make a journey, as in 1893, when Chicago borrowed it for the World's Fair.

The story of how bells in Europe came to have names and inscriptions goes far back into history. The Christian religion has always made much use of bells. The first missionaries to western Europe used to carry small iron ones in their hands to attract the people's attention as they traveled about teaching the new religion. People in Ireland still keep and treasure the bell Saint Patrick carried when he was teaching there in the year 640. In Field Museum you can see an exact reproduction of it.

Being closely associated with religion, the ringing of church bells came to be considered as holy and therefore powerful against storms, fire, sickness, and evil spirits. People of the Middle Ages were really afraid of evil spirits, especially the gods of the old religions, who were thought still to have some power, and to hate the followers of the new Christian god. These enemy spirits were believed to be afraid of the sound of church bells; therefore, when any one was dying, the bells were tolled to protect the soul on its journey from this world to the next.

No wonder, then, that these holy and friendly bells were loved, that they usually were inscribed with prayers, quotations from the Bible, or verses praising themselves, and that each one had its name, usually that of the person who had it made, or of some saint. Each new bell was christened with a solemn religious ceremony in which it was prayed over and covered with a white robe as if it were a baby. Town bells, which rang to call the people together for defence or for public meetings, to give alarms, or simply to mark the hours of the day and night when most people had no clocks, were also loved and also had names.

Other parts of the world have likewise treasured bells. The Chinese, although they have never considered them as sacred and powerful as our ancestors did, sometimes use them in places of worship to remind people of the times for prayer. In Field Museum's Chinese collection you can see several old temple bells, as well as other smaller bells made for the collars of horses or camels. One cast-iron temple bell comes from a Lamaist temple. Lamaism is the form of Buddhism followed by the Tibetans and Mongols, and this bell bears inscriptions in the Tibetan and Chinese languages. It is hung to show the Chinese method of ringing by means of a wooden beam which strikes the bell on the outside. Some of the collection of pagoda models show how the Chinese hang bells at the corners of pagoda roofs to be rung by the wind.

In the Malay jungles, when a tame elephant's work is done and he is turned out to pasture, he wears a large wooden bell to help his owner to find him again. Hunters in Africa often put small bells on the collars of their hunting dogs so that they may be more easily followed. And when you travel about the world or read geography and history, you will find many other interesting ways in which bells are used or have been used.

JUNE WORK, Guide-lecturer

Note: See how many bells you can find in Field Museum. Look among the Roman and Irish collections in Edward E. and Emma B. Ayer Hall on the main floor, the Chinese collections in the second floor galleries, and collections in Halls 8 and 9 on the main floor and Halls D and G on the ground floor.

Save your Museum Stories. You will find them useful for looking up things you may want to know.

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Series XII, Number 3
October 19, 1929

FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

SPIDERS

The spiders are the civil engineers of the animal world. They build bridges over which they walk and hang nets made with exquisite care. They build balloons in which they sail through the air. They build all sorts of cunning traps with which to catch their prey.

Did you ever walk down the garden in the early morning when the dew was still on the grass and silken webs glistened in the sun? What was that silky thread that gently tapped you on the cheek?

The spiders were busy last night. They repaired old webs and built new ones. If you look closely you will see some of the webs are very near to the ground, almost touching it; they form an irregular mass of silken threads. In one corner, or near the center, is a funnel. This is the hiding place of the spider. When the net is disturbed, be it ever so gently, the spider pounces out and wraps the intruder in silken threads.

Some spider-webs are built in bushes and higher places; these are called orb webs and are the most beautiful, because they are so perfect. They are built somewhat like a wheel with many spokes but with a spiral thread filling the wheel. This spiral is made of sticky, elastic silk while the spokes are made of dry, firm silk.

The silk used by the spiders comes from many small, finger-like projections at the tip of the spider's abdomen. It is liquid until it comes in contact with the air, when it hardens immediately forming a thread.

On a still day in August, the balloon spider perches on a blade of grass and spins many threads of silk. As they are wafted up into the breeze, some of the threads mat together and form a sort of balloon. Soon this balloon takes the spider off its perch and away it sails. Sometimes the spider is carried many miles before the balloon comes down to earth and to a new home.

Some spiders build tunnels in the ground. One kind of spider is called the "trap-door spider" because its tunnel has a little trap-door at the surface. The spider digs a tunnel and lines it with silk. The lid is made of earth and silk mixed together. The spider lifts the lid and peeps out. If danger is near, it goes down again, but if an insect be passing by, the spider pounces upon it and pierces it with small, poisoned claws. When the male spider comes courting the female, he

comes very cautiously; if she is ready to receive him all is well; if she is not she will pounce upon him and devour him.

Before the spider mothers lay their eggs, they make little silken bags. Into these they lay their eggs. Then the bags are sealed. Some mothers hang the bags in bushes or in webs where the sun will warm the eggs; other mothers fasten them to the tips of their abdomens and carry them for a time.

One particular mother, called "Lycosa" or "Wolf Spider," carries the bag until the babies hatch. She guards it with great care. When the young spiders hatch they scramble right up onto her back; they simply swarm over her until they find a place to hang, then they are quiet. If knocked off they immediately climb up her legs and onto her back again. The mother does not seem to mind this load and carries them around for several months. She does not urge them to leave, neither does she try to keep them, but when they get ready to go they scramble off.

The jumping spiders are most interesting. In courting the females, the males dance; they have bright colors on their legs and attract the attention of the females by these. They hold the front legs up over their heads and hop around in a very peculiar manner. The jumping spider mother hangs her egg-sac in a silken nest in a tree or bush; she guards the nest and watches the babies until they scatter. The nest also serves as a home for the spider to stay in throughout the cold winter.

Many spiders winter, like the jumping spider, in a nest; others, that burrow in the ground, remain there; and others spend their winter months in cracks and corners in our houses and garages. When spring comes they start their activities anew.

MIRIAM WOOD, Guide-lecturer

Note: In Hall 17, on the first floor, is a case showing burrowing spiders and their tunnels.

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STEPHEN C. SIMMS, Director

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Series XII, Number 4
October 26, 1929

FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

AN ARAPAHO SUN DANCE

Biba was a sick little Arapaho Indian girl. Naka, her father, had paid the wise old medicine-man two horses to pray and sing over her, but it had been of no use. Her mother sat by the bed in the tipi and made a lovely little deerskin doll with real hair, but even that did not make Biba feel much better.

At last, Naka grew so worried that he made a prayer to the Sun. He said: "For the good of my tribe, that there may be no more sickness, and that my little girl may get well, I vow to have performed for me the ceremony of the Offerings-lodge." He meant the famous ceremony of the Plains Indians which the white man calls the Sun Dance, a long hard performance which lasted several days. The man who had it performed had to pay the priests and his other helpers with many blankets, skins, and perhaps horses. The Indians believed that it brought good fortune not only to those who took part in it, but to all the tribe.

That same morning Biba began to feel better, and in a few days she was well again. So Naka knew that the Sun was pleased with his pledge.

Soon the tribe began making ready for the Sun Dance. Messengers were sent to the various wandering bands of the Arapaho, and to the Cheyenne and other friendly tribes, inviting them to be present. At the meeting place the Arapaho tipis were arranged in a great circle, and the guests from other tribes found places just outside. As each group arrived, the newcomers rode twice around the circle to greet those who had already come. There was constant excitement as friends and relatives met for the first time in months, and the camp was full of shouting and singing.

Biba and her little brother were busy getting acquainted with the boys and girls of other groups, and learning delightful new games. For so great an occasion the mothers had dressed the children in their best clothes, decorated with beads and quill embroidery.

At last, the camp crier went about the circle announcing that the ceremony was about to begin. The same day a special tipi was set up inside the circle. Here Naka, his wife, and the priests and wise old women who were to help them, began their preparations. During the next three days many mysterious ceremonies went on in the tipi. Outside, preparations began for the building of the Offerings-lodge. Certain warriors rode away to search for trees for the posts. They pretended to be following and attacking an enemy, and brought the posts into camp with war whoops and shouts of victory. The Offerings-

lodge was built like the skeleton of a large round house. It had no walls or roof except a few leafy branches laid against the posts and rafters. The Sun could look right in upon his worshipers.

When the lodge was ready, a solemn procession of priests brought the sacred objects they had been preparing in the special tipi. West of the center pole of the lodge they made an altar or sacred place. Here everything had a religious meaning. Most important were the skull of a buffalo, the animal on which the Indians depended for food, and a hoop of wood which stood for the Sun and also for a sacred and friendly snake.

A number of men, when they heard of Naka's vow, had pledged themselves to take part in the Sun Dance. Each had asked some wise old man to be his "grandfather" or helper in the ceremony. These men and the grandfathers painted their faces and bodies with sacred designs.

For three days these men danced for the Sun. Certain others kept up a steady singing and drumming for them, and they carried whistles which they blew all together from time to time. Sometimes they sat down and rested for a while, and every day they washed off the paint and were painted with fresh designs, but during all that time they had nothing to eat, and they never stopped thinking about their gods and wishing that what they were doing might bring good fortune to the tribe. As they danced, members of the tribe and visitors crowded around the lodge watching and encouraging them.

On the third day, the women brought great quantities of food and piled it outside the lodge. The dancers grew more and more tired and hungry, but they danced faster and harder, until at last, the Sun sank out of sight. Then they washed off the sacred paint, came out of the lodge, and joined the rest of the people in a glorious feast. All were happy, for they were sure that the Sun was pleased with what they had done for him.

JUNE WORK, Guide-lecturer

Note: In Hall 5 on the main floor of Field Museum you may see a tipi like that in which Biba lived, a bed like the one she lay upon, dolls like the doll her mother made for her, a real Arapaho Sun Dance altar, and many other things used in the Sun Dance and in the daily life of the Plains Indians.

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Series XII, Number 5
November 2, 1929

FIELD MUSEUM OF NATURAL HISTORY
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METEORITES

Meteorites are of great interest to us because they afford the only real touch that we have with the rest of the universe. The sun, stars, planets, and comets can be seen, but never can be examined at close range. Meteorites, however, fall to the earth and so far eight hundred twenty have been found; thus they can be studied and examined in the laboratory. About nine hundred are thought to fall each year, but as three-fourths of the earth's surface is water, three out of every four meteorites fall into the sea, and of those that fall on land only a few are recovered. Those that fall in sparsely settled regions have little chance of being found, in fact, on an average, only three a year are added to the existing collections.

Just where meteorites come from is a question that cannot be answered. They come from the sky, but whether they are parts of stars or small planets, or have come from comets is not yet known. The falling stars that we so often see on clear evenings are minute meteors which usually dissolve into dust before reaching the solid earth.

Meteorites are divided into two classes—those composed mostly of stone, and those that are mostly iron. Practically all meteorites contain some metal, iron being most abundant and nickel second in importance. Cobalt and copper are also often present in addition to other rarer minerals. Even platinum and diamonds have been found in small amounts, but they are very rare. Various primitive peoples have made use of meteorites as a source of iron. In a Field Museum exhibit are several chisels made from a Mexican meteorite.

Most meteorites have pitted surfaces caused by impact with the atmosphere as they fly toward the earth at a tremendous rate of speed. The resistance of the air heats the surface so that it may become bright enough to shine like the sun, even when the sun is shining. In fact, streaks of light occasionally mark the paths of meteorites after they have disappeared. The record one lasted ten minutes. Besides being seen, meteorites can often be heard, as the upsetting of the air by their passage is apt to cause loud noises similar to thunder or cannon fire.

Although you might think that meteorites are very hot, such is not the case, as only the surface is heated and those found immediately after falling are warm or slightly hot. Sometimes they fall to the earth with such force as to bury themselves in the ground.

Meteor Crater in Arizona was at one time explained as an old volcano, but now it is generally thought to be a pit caused by a huge meteorite which fell with such force as to bury itself several hundred feet in the ground. Thousands of small iron meteorites found scattered around the crater are thought to be fragments of the huge one, or smaller ones that fell with it. A very large meteorite is also thought to have fallen in Siberia, but until the Soviet aeroplane expedition sent to investigate it returns, our knowledge regarding it is uncertain.

The known meteorites vary in size from the largest, weighing thirty-six and one-half tons, to small ones the size of grape seeds. Probably there are even smaller ones that have never been found. Usually only one will fall at a time. There may be a shower, however, and from two or three to one hundred thousand will fall at once, all within an area of a few square miles. The danger of their falling on someone might seem great, but no one has ever been known to be injured by them. The closest escape known occurred in Braunau, Bohemia, where in 1847 a thirty-five pound meteorite fell through the roof into a room where three children were sleeping.

FRANKLIN C. POTTER, Guide-Lecturer

Note: Of the many collections to be found in various parts of the world Field Museum has the largest. A large meteorite weighing 3,275 pounds is exhibited in Stanley Field Hall on the first floor, the others are in Hall 34 on the second floor.

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Series XII, Number 6
November 9, 1929

FIELD MUSEUM OF NATURAL HISTORY
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CHICAGO

TURTLES

When dinosaurs and other great reptiles walked the earth and swam its waters, life must have been even more dangerous for slow-moving creatures than it is now. To escape being eaten, certain small reptiles developed two hard outer shells, one above and one beneath. Between these the whole body could hide in times of danger. When he felt safe, the animal pushed out his head, legs and tail, and walked or swam about in search of his own dinner. This arrangement seems to have been satisfactory, for it has been the fashion among the descendants of those ancient reptiles through all the ages from the time of the dinosaurs to the present. We call such reptiles turtles, and many of them are also known as tortoises or terrapins. They are found on land and in the sea, in many parts of the world. Some of them live in the oceans, but a larger number live on land, or in lakes, ponds, and rivers.

The largest turtles or tortoises of modern times live on the Galapagos Islands, in the Pacific not far from the coast of Ecuador. Some of these have shells four feet long. They live largely on vegetables and fruit. Some turtles spend all their time in the water, and have soft, leathery shells. Others, which go about on land, have shells which can be shut together like a box, and are called box tortoises. Many turtles are good to eat, and some are so much liked that they have become rare and are very expensive. Diamond-back terrapins, which are considered the best of all, are sometimes raised on turtle farms. In some parts of the world people eat turtle eggs.

In ponds and brooks about Chicago we often meet the snapping turtle. Once in a while we see him on land, especially in dry weather, if he is looking for a new place to live because the old one is dried up. This is our biggest turtle, often having a shell more than a foot long. He is dull in color, with a warty skin and a rough shell. If you meet him it is wise not to interfere with him, for he was not named snapping turtle for nothing. His long neck can reach farther than you would think, and although he has no teeth, his strong, horny jaws have such a sharp edge that he could easily bite off a finger or two.

The mother snapping turtle lays her eggs early in the summer. Instead of making a nest and brooding as a mother bird would do, she buries her eggs in a warm, sunny spot, and leaves them. When the young turtles appear, hatched by the warmth of the sun, they are ready to take care of themselves at once. Snapping turtles spend much

of their time under water. Coming up suddenly under a swimming bird, the strong jaws snap on a foot, and the surprised bird is pulled under, torn to pieces, and swallowed. If it is a large bird, it may escape, leaving a toe or a foot in the turtle's mouth. When a farmer sees his ducks going lame, he thinks at once of a turtle in the duck pond. Although he is an air-breathing animal, this turtle apparently cannot swallow unless his head is under water. Besides birds, he eats other small reptiles, fish, frogs, insects, and sometimes leaves.

The pond turtle or painted terrapin is also fairly common. He is smaller than the snapper, and prettier. His smooth back or black upper shell is marked with yellow and has a brown and red border which is particularly bright on the under side, where it shows around the edge of the yellow under shell. The brown head and neck are striped underneath with yellow. When frightened the pond turtle folds his feet and tail against his body, under the upper shell, and pulls back his head and neck until the tip of his nose disappears under the edge of the shell. If you want to handle him pick him up carefully by the back half of the shell, for though he is less strong and dangerous than the snapping turtle, he also can bite. Often you can buy baby turtles of this kind in pet stores. They are interesting to watch, but do not put them in the goldfish bowl. Even if they are much smaller than the fish, they will bite off pieces of fins and tail, and may even kill them. Keep your little turtle by himself in a place where he can have water in which to swim, and a stone or piece of wood on which to rest when out of the water. Feed him chopped raw beef or fish, earthworms, soft insects, and a little lettuce. If you are kind to him, he may even take food from your fingers.

JUNE WORK, Guide-lecturer

Note: In the west end of Albert W. Harris Hall are many kinds of turtles, including those mentioned in this story. The skeleton of a turtle is in the east end of Hall 19, and in Stanley Field Hall is a fossil turtle on which the Chinese inscribed Chinese characters about fifteen hundred years before Christ was born.

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Series XII, Number 7
November 16, 1929

FIELD MUSEUM OF NATURAL HISTORY
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WOODCHUCK

On Ground-hog Day, the second of February, the ground hog or woodchuck, as it is often called, is supposed to awaken from its winter's sleep to investigate the weather. If the signs are favorable, it remains up; if they don't look promising, it goes back to sleep for six more weeks. So much for superstition. But the woodchuck does actually awaken on one of the first warm spring days and the weather determines whether it will remain up or go back to sleep for a while longer. This awakening may be in February, but usually occurs early in March. The farther south, the sooner the awakening. To the northward, warm weather does not come until later.

Woodchucks dig underground burrows by clawing out the dirt with their front feet and kicking it backwards with their hind feet just as dogs do. Each burrow contains a number of galleries and grass-lined sleeping dens and is usually occupied by a single animal. Most burrows have at least two openings, so that if danger threatens at one door the occupant can escape by way of another. Woodchucks may feed at any time but usually they eat most heavily in the early morning and lunch in the late afternoon, the hot noonday being spent in sunning themselves near the burrow. Grasses and clover are favorite foods although any garden crop may be eaten and when a garden is occupied the owner needs dogs, traps, guns, or poison to try and save his vegetables. In addition to vegetables and grass woodchucks eat fruit, melons, and even bark if necessary. Trees, such as the peach, are climbed for their fruit.

Early in May the three to nine babies arrive. Like most rodents (the gnawing animals with four powerful front teeth) the woodchucks are born blind, hairless, and very helpless. After several weeks their eyes open and after about six weeks the mother allows the young to venture outside the burrow where they sun themselves, romp around, and play. About the end of the summer the youngsters are driven out into the world to shift for themselves, and after digging burrows they are almost ready for their winter's sleep. As with many other rodents food is stored for the winter, but not in holes. It is eaten and stored as a layer of fat on the animal itself. During the winter this fat helps to keep the woodchuck warm and in spring before green vegetation can be found it serves as food.

Woodchucks are such speedy diggers that when someone digs into their burrows they can dig and block up blind galleries so skillfully that few enemies can detect the new hiding places. These heavy, lazy animals are very watchful and quickly retire to the burrow at a sign of danger. If cut off from refuge, however, they fight savagely and are afraid of nothing. A dog needs to be a very good fighter or he may be killed by a woodchuck. Foxes are the only serious enemies and especially so in the spring as after the frost has left the ground they dig out the still sleeping woodchucks.

If caught when young, woodchucks are easily tamed. They will live on friendly terms with people and house pets, but they rarely become affectionate. When fall comes they dig burrows in which to sleep just as their wild relatives do. One pair of young which was fed at the back door hibernated as usual for the winter and on the first warm spring day appeared at the back door for its milk just as though the last visit had been the day before instead of five months previous.

Now, I'll tell you a true story about a boy named Daniel Webster who later became a great debater. On the Webster farm the fate of a trapped woodchuck was being discussed. Finally the father told his two sons to debate and the winner would decide the fate of the captive. Ezekiel argued that woodchucks ate so much and dug so many burrows without doing any good in return that they did not deserve to live. Then Daniel, with a touch of his future greatness, pleaded that wild creatures desired their freedom just as we do and that God had created all animals to live—not to be needlessly killed. So sincere was Daniel that finally Father Webster with tears in his eyes ordered "Zeke" to let the woodchuck go free.

FRANKLIN C. POTTER, Guide-lecturer

Note: In Hall 15 on the first floor there are three cases containing woodchuck exhibits. One of them, Case No. 30, contains a family group surrounding its burrow.

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STEPHEN C. SIMMS, Director

MUSEUM STORIES FOR CHILDREN

Presented by

The James Nelson and Anna Louise Raymond Fund
for Children's Lectures and Entertainments

Series XII, Number 8
November 23, 1929

FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

The first people of whom we know anything depended for their food upon the wild plants they could find and the wild animals they could kill. Many thousands of years ago some people began to tame certain wild animals, and became nomads, traveling from place to place in search of pastures for their herds. The first nomads probably lived in the highlands of western Asia, where they tamed some of the Persian wild goats, such as still live in that country, and are believed to be the ancestors of the common domestic goats. Sheep and goats, with their meat, wool, skins, and milk, were so useful that soon other tribes living near the nomads wanted to be herdsmen too.

Thus, in the course of centuries, descendants of the first domestic goats found homes in Africa and Europe. During the Late Stone Age a race of people built towns on piles driven into the bottoms of lakes in Switzerland. Refuse from their houses fell into the water, and lay forgotten until modern students found the remains and learned from them of the life of the Lake Dwellers. Among these remains are bones of many domestic animals, including those of goats.

The early Hebrews, ancestors of the writers of our Bible, were nomads, herding sheep and goats in southwestern Asia. A curious custom of theirs is described in the book of Leviticus. Once a year, in a solemn ceremony, the sins of the tribe were symbolically loaded upon a goat, which was driven away into the wilderness. The Hebrews believed that it carried away their wrong-doing and their punishment, and so they called it the scapegoat. We still use that name for a person who is blamed for something some one else has done. The Bible also mentions bottles made of skin. In many countries of Asia, Europe, and Africa it has been customary to keep liquids in bottles of goatskin.

To Greek peasants goats were associated with playfulness and joy in life. They believed that the forests were inhabited by jolly creatures, half man, half goat, called fauns. The ancient Greek god of forests and of herdsmen, Pan, was pictured as having the legs, and sometimes the horns and ears, of a goat.

The flesh of young goats, called kids, is as good as that of lambs, and in some parts of the world is considered a delicacy. In southern China black goats are more common than sheep, and are valued for their meat, hair, and skins. Although the Chinese do not use cows'

milk, they eat the curdled milk of goats. Modern Arabs make their tents of the hair of black goats, as their ancestors have done for centuries.

In Europe the goat is called the poor man's cow, because it furnishes milk, and costs much less to keep and feed than a cow. It is especially popular in mountainous regions, as in Switzerland and Norway. In many towns in Italy, the goatherd drives his flock through the streets, and milks into the housewives' pails as they come out to buy.

Goats are becoming common in the United States. Their milk is considered especially healthful for young children and sick people. Angora goats are valuable for their wool, and are also useful in clearing bushes and young trees from land that is wanted for farming, for like other goats they like leaves and twigs better than grass. When their work is done the farmer finds his unwanted shrubs turned into fine wool.

Among the wild members of the goat family we find the Persian wild goat, the markhor and tahr of the Asiatic mountains, and the ibexes, which are closely related to goats. Our American Rocky Mountain goat is not a true goat, but belongs to the group called goat-antelopes, like the goral, serow, and takin of Asia. All of these are hardy, adventurous, mountain-loving creatures like the true goats.

JUNE WORK, Guide-lecturer.

Note: Near the south end of George M. Pullman Hall are a number of goats and goat-antelopes. Between this and Hall 16 is a habitat group of the Rocky Mountain goat and in William V. Kelley Hall is one of the Asiatic ibex, showing the type of home best liked by goats and their relatives.

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MUSEUM STORIES FOR CHILDREN

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The James Nelson and Anna Louise Raymond Fund
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Series XII, Number 9
November 30, 1929

FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

WILD TURKEYS

The first Thanksgiving dinner, of which we have a definite record, came after a very solemn service. The Pilgrims had gathered in the meeting house at Plymouth to render thanks for the bountiful harvest which had crowned their labors after one year in their new home in the western wilderness, and had then returned to their humble huts. The dinner was in keeping with the day and the chief item was wild turkey roasted over open fires.

From that day to the present, the meat desired for the Thanksgiving dinner has been turkey. But the turkey we use is somewhat different from the bird which roamed about the woods near Plymouth in 1621.

When Cortez and the Spaniards invaded Mexico, they were surprised to find the Aztecs had domesticated the wild turkeys. So delicious was the flavor of the meat of these tamed birds that the Spaniards decided to carry as many as possible back to Spain with them. There the fowls immediately became popular and by 1530, turkeys had become much at home in all European poultry yards. Later, the domesticated forms found their way back to New England and mixed with the wild turkeys. there. Thence came a westward movement. So our turkeys are descended from Mexican ones.

The wild turkey is a large, handsome bird. Its glossy plumage looks like polished metal when the sun shines on it. Sometimes, the bunch of wiry feathers projecting from the breast is so long it reaches the ground between the owner's feet. He is then a gorgeous-looking bird as he pulls in his head, expands his wing feathers and struts about. In the tail are rich chestnut-bordered feathers instead of the white ones found in the domesticated turkey's tail.

In the early days, wild turkeys ranged from the Atlantic coast to South Dakota. Wherever oaks and beeches grew, there the turkeys found the "mast" on which they lived. This was composed chiefly of nuts and berries. Beech nuts, especially, gave the flesh a delicate flavor.

Sometimes, food became scarce in the woods or groves and hundreds of wild turkeys would migrate from one area in search of their desired nuts and berries. At such times, the males would travel in one group by themselves and the mother turkeys and youngsters in another.

In fact, it was dangerous for the youngsters to get in the way of the old males, for they could easily strike the little ones with their feet and cause death.

Audubon, the great bird lover, tells of watching a large group of wild turkeys which was traveling across country. The birds came to a wide river and were confronted with the problem of crossing it. For some time, they occupied a hill overlooking the stream and from the sounds must have been discussing the situation. No attempt was made to cross during the daytime, but at dusk, just one word of command was given and the entire flock rose on wing and crossed the river with perfect ease. There they flew up into trees and roosted until daylight when they resumed their journey on foot.

When spring came the turkey hens sought out a sheltered spot under a bush or at the base of a tree and scooped out a hollow which was lined with dead leaves. Here were laid the eight to twenty spotted creamy or buff eggs. Sometimes, several hens used the same nest. This was evidently for greater protection. If one hen occupied a nest, she was sure to cover the eggs with leaves when she left in search of food. The young turkeys were very delicate when first hatched and were carefully tended by the mothers.

As settlers moved westward and cities sprang up where forests had been, the wild turkeys found it more and more difficult to procure the mast needed. Then too, man learned how to imitate the various calls and lure the birds from their shelters. As a result of traps, calls and guns, the birds are becoming rare. This is a pity, as it is one of the noblest of game birds.

MARGARET CORNELL, Guide-lecturer

Note: In Hall 20 on the first floor is a habitat group showing the wild turkeys in the open woods of Madison Parish, western Louisiana.

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STEPHEN C. SIMMS, Director

MUSEUM STORIES FOR CHILDREN

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for Children's Lectures and Entertainments

Series XII, Number 10
December 7, 1929

FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

ELEPHANTS OF LONG AGO

Elephants! What a wealth of thoughts come to mind as we think of these great beasts. Whether they are soberly playing a baseball game in the circus ring, or lazily throwing straw over their backs in a zoo, we are fascinated. And well we may be, for these animals can trace their family history far back into the past.

Today there are two kinds of elephants: the great, triangular-eared African type and the Indian type which has won a place in our hearts by its quaint antics in the circus. Both are descendants of elephants of the past.

It is believed that the first elephants came into being in Africa and that they were very different from the animals bearing the same name today. In Egypt, have been found bones of a kind which was very small with short, stubby legs and tusks in both jaws. This elephant spent much of its time in the water of the Nile.

Elephants have always been wanderers. If food became scarce in one locality, then whole herds have moved to regions which supplied the desired vegetation. By means of bones found in pits and peat bogs (where the animals became mired) and along their migration routes, it has been possible to trace the journeys of these beasts from Africa into Europe, and from Africa across Asia. Of course, such a migration took thousands upon thousands of years. Finally, some of them reached the land bridge that formerly connected Asia with Alaska and crossed over into North America. Then they spread from coast to coast. As a result, Michigan, Ohio, Indiana and Illinois itself have become famous hunting grounds for bones of early elephants.

As time passed, and the elephants changed in size and power, new varieties came into existence. The nose lengthened more and more, as the length of leg increased, until it became the trunk or "proboscis." This is the most characteristic feature of the elephants of today. At the end of the trunk are the nostrils between which is a finger-like projection used by the animals for lifting dainty morsels to their mouths or for pulling tender leaves from a stalk. The teeth also underwent changes. It is by the teeth that different kinds of elephants are known. The tusks are merely great, overgrown teeth protruding from the upper jaw, and having enamel only at the tips.

Four different kinds of early elephants have been found in North America. As far as known, the Mastodons, who were first cousins to

the true elephants, first began in our land, and later crossed the land bridge into Asia. Their tusks were directed nearly straight forward, were almost parallel and had very little curve. The males had short tusks in the lower jaw as well as long ones in the upper jaw. The skull was low and flat and less dome-shaped than that of the elephants of today. Remains of the American Mastodon are numerous and show these animals to have had long bodies, coarse, long hair, and to have fed on leaves, shoots and small branches—especially those of the evergreen trees. It is now believed that the Indians found Mastodons in this land when they came to North America from Asia. In the Hall of Prehistoric Animals you may see a Mastodon skull found at York, Illinois.

The first true elephants of which we have any record in our country were the Mammoths. These animals were also numerous in Asia and Europe. In fact, complete carcasses with hair and hide attached have been found in frozen gravels in northern Siberia. Bits of hair and skin are to be seen in the Museum collection. The Mammoth was well-adapted to life in a cold land. He was clothed in a dense, woolly-hair coat and overcoat of long, coarse hair. It was from the ivory of the Mammoth's tusks that men of the Stone Age secured material for their arrowheads and harpoons.

The Mammoth known as the "Columbian" rivalled the largest existing elephants in stature. Its huge tusks curved first downward and then upward and inward. When fully grown, the tips were so curved that they crossed each other.

The largest of all the early elephants was known as the "Imperator" and ranged from the Mississippi River westward. It was an enormous creature standing at least thirteen feet high at the shoulders.

Margaret M. Cornell, Guide-lecturer

Note: Be sure to visit the Ernest R. Graham Hall on the second floor. There you may see a skeleton of a "Columbian" found in the State of Washington, one of a Mastodon found in southern Michigan and many other interesting things relating to these famous animals.

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